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(54) Title: PHOTOCURABLE COMPOSITIONS CONTAINING REACTIVE PARTICLES

(57) Abstract: A photocurable composition, including (a) a photocurable monomer, e.g. a cationically curable monomer and/or a radically curable monomer; (b) reactive particles comprising a crosslinked elastomeric core, e.g. made of polysiloxane material, and a shell of reactive groups on an outer surface of the core, wherein the reactive groups comprise epoxy groups, ethylenically unsaturated groups, or hydroxy groups; and (c) an appropriate photoinitiator, e.g. a radical photoinitiator; and a cationic photoinitiator. A method of making a 3-D object from such a composition and a 3-D object made by the method are also provided. The cured composition generally has a smooth surface. The use of the reactive particles makes the composition more stable and the particles do not readily separate out.

## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G03F7/00 G03F7/032 G03F7/033 G03F7/038 G03F7/075

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 01 95030 A (JSR CORP ;TANABE TOYOKAZU (JP); UKACHI TAKASHI (JP); JAPAN FINE CO) 13 December 2001 (2001-12-13)</p> <p>page 34, line 1 - line 9; claims; examples; table 1</p> <p>---</p>	<p>1,2, 8-10, 15-18, 24,25, 27-29</p>
X	<p>WO 00 63272 A (JSR CORP ;KATO YUKITOSHI (JP); TANABE TOYOKAZU (JP); UKACHI TAKASHI (JP)) 26 October 2000 (2000-10-26)</p> <p>page 40, line 19 -page 41, line 2; claims; examples</p> <p>page 41, line 13 - line 21</p> <p>---</p> <p>-/-</p>	<p>1-4, 8-10, 15-18, 20, 23-25, 27-29</p>

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X	EP 0 640 876 A (DU PONT) 1 March 1995 (1995-03-01) claims; examples ---	1, 3
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A	EP 0 393 675 A (DU PONT) 24 October 1990 (1990-10-24) page 8, line 9 - line 12 ---	1-29
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A	US 2001/046642 A1 (PATEL RANJANA C ET AL) 29 November 2001 (2001-11-29) cited in the application examples ---	1-29
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